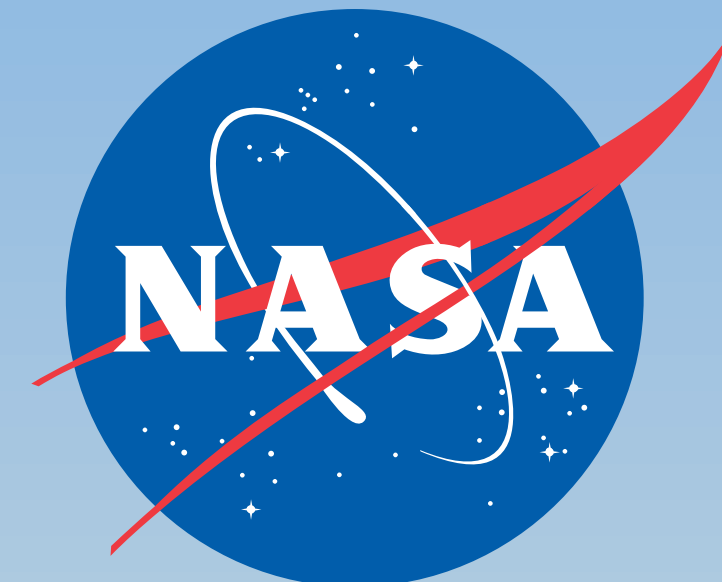




An astronomer participates in taping the video pilot of a proposed TV series on astronomy and space exploration. Photo courtesy of Kelly Beatty.



Interacting With the Media: Who, Why, What, Where and How?

Dr. Steve Maran American Astronomical Society, Dr. Michelle Thaller NASA Goddard Space Flight Center

WHO?

“Scientists and other researchers ... can play an important role not only in communicating the facts, but also the value of science and technology.”
—Richard Hayes and Daniel Grossman, *A Scientist's Guide to Talking with the Media* (Rutgers University Press 2006), p.xi

Astronomers participate in media activities as:

- Individual researchers, and science team members reporting their results
- Distinguished experts commenting on new results presented by other scientists
- Press Officers for the scientific society sponsoring the briefing or for the science team
- PI science teams (e.g.: Swift, Fermi) sometimes have a Co-I who is their team Press Office
- Large research collaborations (e.g.: SDSS, IceCube) usually have a scientist Spokesperson
- Agency officials, lab directors, etc., hosting or officiating at press conferences



A project scientist briefs the media on the science goals of a future spacecraft. Photo ©2009 American Astronomical Society.

WHY?

“...since astronomy, in most respects, has almost no direct practical application whatsoever, the need to excite the population with good results is even more important than in other branches of science...”
—Lars Lindberg Christensen, *The Hands-On Guide for Science Communicators* (Springer 2007), p.6

- It's strongly encouraged by the leaders of government funding agencies
- To communicate new knowledge to the public
- To develop further public recognition and support for science in general and for Astronomy and space research in particular
- To establish publicly that your program, spacecraft, observatory, telescope, etc. is alive and well and making new discoveries
- Potentially, to enhance your career prospects

WHY NOT?

If your public announcement, press release, etc. is premature, badly worded, departs from professional norms, greatly exaggerates the originality of the work or the magnitude of your personal contribution, and/or appears to be timed to preempt attention from a forthcoming announcement from another group, the process and hoopla could hurt your professional standing and career prospects

- Conclusion: Communicating suitable research results to the public is well worth doing, but must be done appropriately.

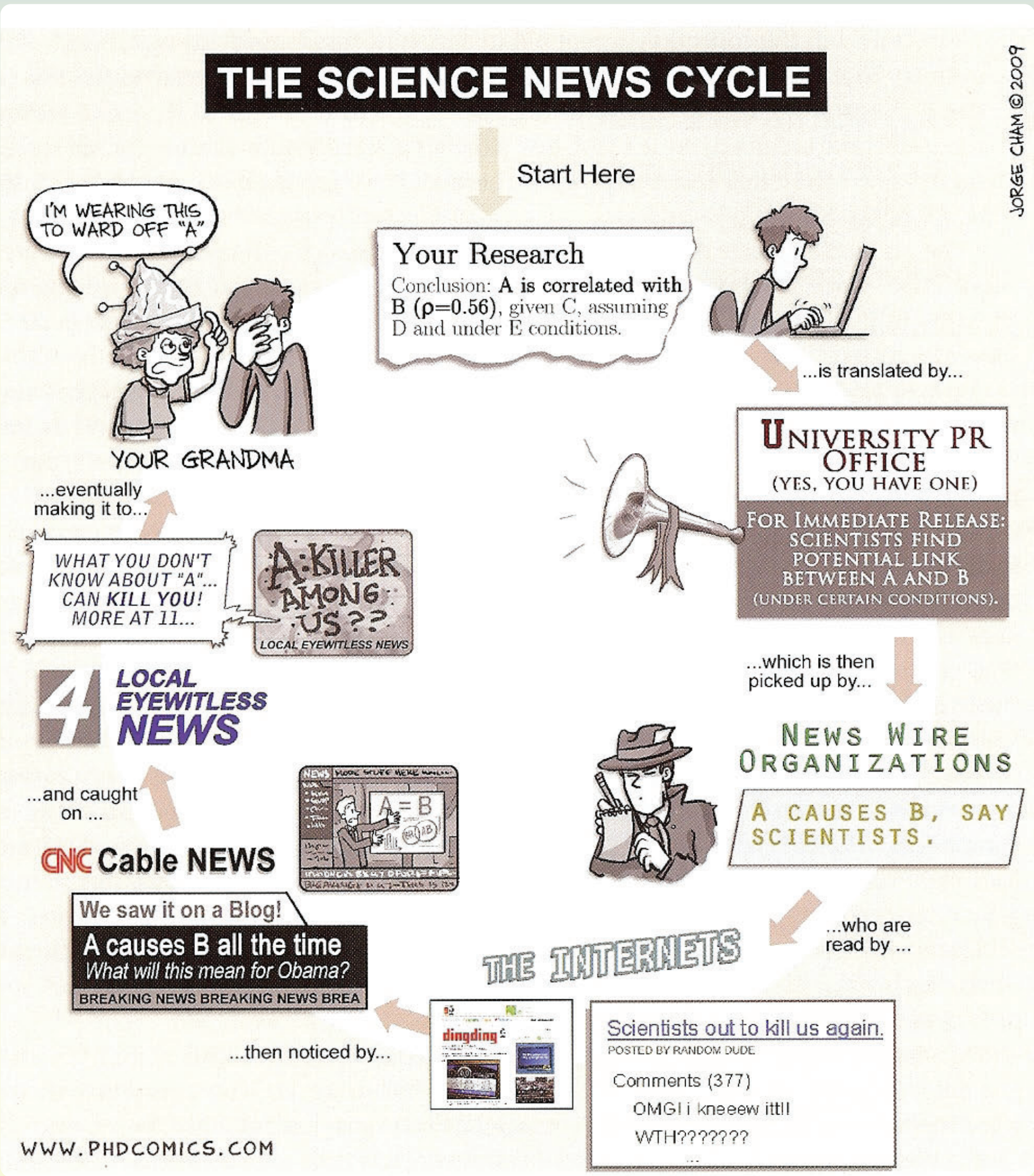


Reporters and press officers on a press bus heading for Mount Wilson. Photo ©2001, American Astronomical Society

WHERE?

Astronomers interact with the media by:

- Announcing their new findings, project plans, or substantial progress in a press release or at a press conference
- Serving as an expert, independent commentator at a news briefing
- Responding to media queries concerning their own publications or for comments on other scientist's work or on science policy actions and debates
- Serving as a Press Officer, Spokes Person, or other organizational representative
- Hosting or speaking at the press tour of a scientific facility
- Writing blogs, which science reporters consult with growing frequency
- Developing, consulting on, or participating in new science media concepts and programs



A dim view of the Science News Cycle.

WHAT?

In the reporting of science news, it's sometimes stated that “newsworthy” subject matter is whatever a reporter is interested in writing about. However, there are some rules of thumb that often apply in selecting news stories in science and especially astronomy:

It involves the discovery of a superlative object or phenomenon:

- the largest (or smallest) galaxy
- the most distant quasar or the nearest exoplanet
- the most massive Kuiper Belt Object or the brightest comet of the century

It represents a unique object or situation (“a first”):

- Hanny's Voorwerp's “mysterious green blob” found by the Galaxy Zoo project the first meteoroid or asteroid to be observed above the atmosphere in interplanetary space before striking the Earth and being recovered for laboratory study (as happened recently)
- the first in situ measurements of particles and fields beyond the heliosphere

It represents a possible or actual solution to a problem or mystery of long standing:

- what were the very first galaxies like?
- the first Earth-mass exoplanet in a habitable zone
- proof of the heating mechanism of the solar corona

It constitutes a major milestone in an important project, as in

- the launch of a spacecraft, its encounter with a planetary object
- “First Light” at a major new telescope
- the first publicly released observations from a new telescope or spacecraft

It has potential general or human interest or represents an opportunity for the public, say

- detection of a familiar substance/ household chemical, like acetic acid, in interstellar space
- something new and easily understood concerning a celestial object that most people have heard of, like Halley's Comet or the Milky Way
- prediction or detection of an unusual sky phenomenon that will be readily visible
- an opportunity for the public to participate in a research program
- analyze astronomers' data, as in SETI@home or Galaxy Zoo
- join the hunt for meteorite fragments on the ground from a recent bolide

It concerns certain hot topics that reporters often cover, such as

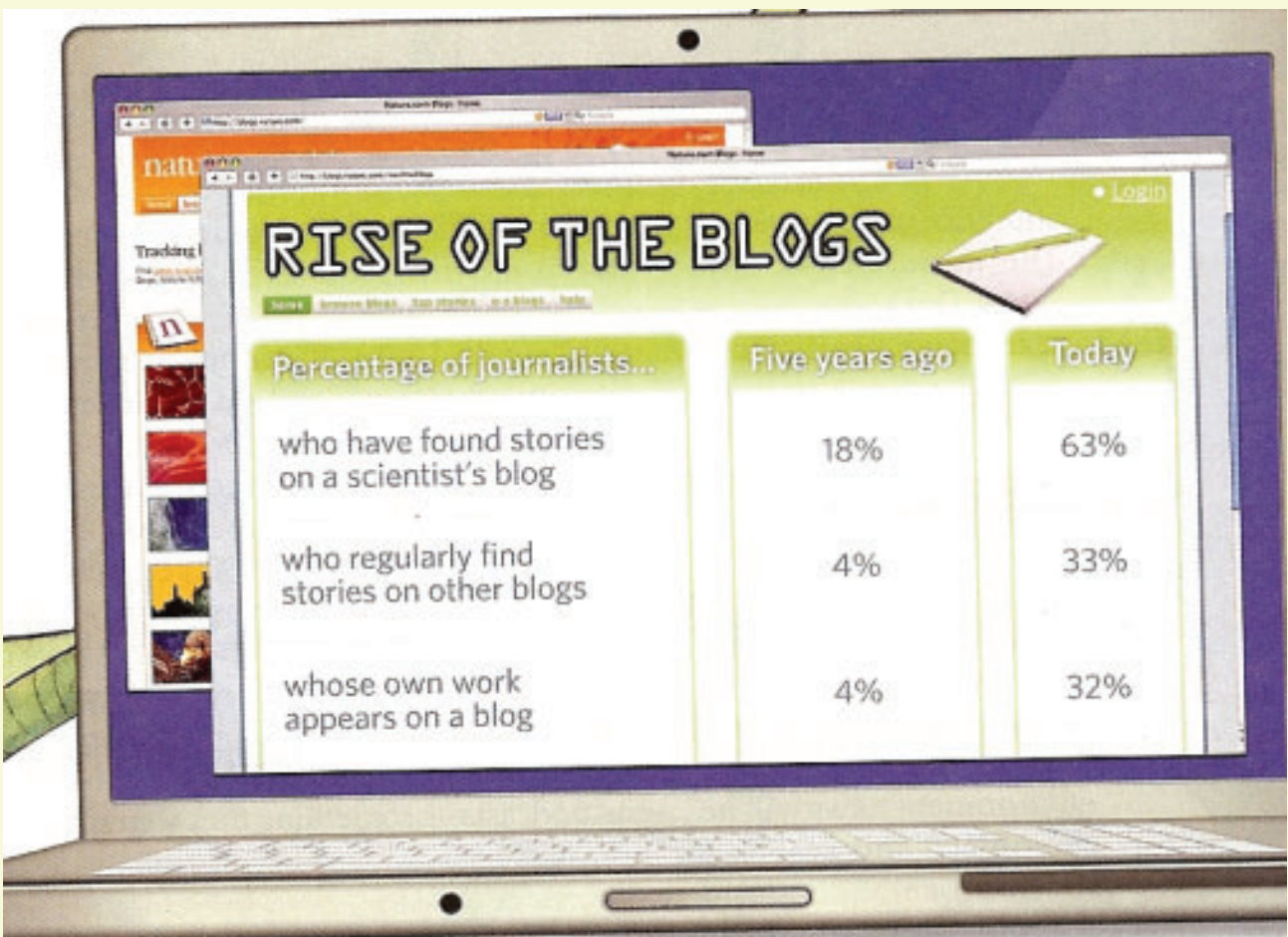
- black holes
- the Big Bang
- Dark Energy
- Astrobiology

WHAT NOT?

Some astronomical research is very important to the profession but rarely interests the news media,

- papers on calibration
- catalogs of precision astrophysical data
- theoretical explanations for obscure problems
- observational findings seen as purely incremental, as in the 452nd known exoplanet, if it's “just” another hot Jupiter

Some research reports may be deemed by your professional colleagues to be inappropriate for being featured to the press, for example, when you are reporting work undertaken in a collaboration but are not a designated Spokesperson for the project



Recent trends in science blogs and reporter usage. From Geoff Brumfiel, © 2009 Macmillan Publishers Limited



A NASA astronomer participates in taping educational webcast

How to get noticed by the Media

To begin, don't be shy about talking to the people who work with the media. They are often looking for good ideas or scientists who are interested/good at working with the media.

Universities have science writers who write and distribute press releases and articles. The on-line website of a university news office often identifies staff science writers and their “beats” (fields of study, etc.) or the academic departments that each is responsible for. They know how to obtain the necessary approvals for any press release that they distribute. They maintain good working relationships with their local news media, and often the national media as well. They are often asked to recommend scientists who would be good to interview or comment on a new result.

Funding and mission agencies have public affairs offices that are responsible for press releases on research programs that the agencies sponsor. Often, the press releases are proposed to them by communication offices at their major facilities or projects. For NASA, this means public affairs staffs at NASA centers like Goddard and JPL, or at major spacecraft institutes such as Chandra X-ray Center, STScI and PI-directed science teams, such as those for Fermi and Swift. DOE has equivalent offices at their national labs. NSF-sponsored observatories (NRAO, NOAO, CTIO, etc.) all have press officers, as do international observatories such as ESO and Gemini. Many of these press officers will gladly consider press release topics suggested by you that involve work done with their facilities. When a government agency announces a discovery, reporters and their editors may be more apt to take notice.

Independent observatories and similar facilities often have press officers to direct media attention to discoveries made by their scientists, the accomplishment of major project milestones, or public outreach programs. Examples include SAO, Lowell Observatory, Carnegie Observatories, and even some observatories that are not yet in operation, such as LSST and TMT.

Press Conferences are commonly conducted at large meetings of professional societies or by an agency such as NASA, ESA or NSF. Some smaller, specialized meetings also offer press conferences as well (there will be media briefings next month at the 2009 Fermi Symposium, for example). Occasionally there is a press conference at an individual university, etc., but only very special topics will attract national media attention to these, e.g. introducing the university's newly selected Nobelista, a photo opportunity with a cloned sheep, and so on.

Scientific society meeting press conferences offer the most opportunities for the average scientist to participate. The American Astronomical Society (and some divisions including DPS, HEAD, and SPD), American Geophysical Union, American Physical Society, and the Royal Astronomical Society are major providers of these briefings, as are certain large international meetings, such as the IAU General Assembly and Europlanet. Each of the organizations and divisions mentioned above has at least one press officer whom you can usually identify from their website. Press officers look through meeting abstracts for newsworthy results, often accept suggestions from observatory and NASA center press officers, and generally are glad to review suggestions directly from paper authors, their department chairs or observatory directors, or their university science writers.

Blogs are written by scientists on their institutional websites or personally maintained websites. Some represent typical blogging - commentary on recent developments in their fields of interest. Others are basically written information sources on topics of scientific interest. (The first place a reporter looks when researching large KBOs is often Michael Brown's website at CalTech, for example.) Blogs are a good way to expose interested reporters (and other readers) to your thoughts and conclusions on current topics.

“...unlike books and lectures, science blogs operate with a quick turnaround that more closely resembles that of the traditional media. The most successful sites are drawing hundreds of thousands of visitors each month.”
—Geoff Brumfiel, *Supplanting the old media?* Nature 458 (19 March 2009), p.274.

Brumfiel, the reporter quoted just above, presents survey results indicating that a majority of science journalists now find story ideas on blogs posted by scientists.

Media Training can make you more effective at understanding and interacting with the press. Start with self-study: read Richard Hayes and Daniel Grossman, *A Scientist's Guide to Talking with the Media* (Rutgers University Press 2006). Their book is designed to help you avoid the following pitfalls, as they state (p.6), “Scientists can get burned when talking to the media by being misidentified, misquoted, quoted out of context, sensationalized, or even ridiculed—problems that we hope to help you avoid.”

AAS generally sends guidelines for press conference talks and for preparing press release texts to speakers in their briefings, and sometimes conducts a dry run and coaching session for speakers at an impending press conference.

AGU runs science communication workshops at meetings; these are directed at making you a better communicator both to the press and to the public.

Some individual institutions, including SAO and NASA observatory institutes/centers provide very effective coaching of prospective press conference speakers. The coaches may not be scientists, but they are experts and the experience is more than worth your time.

The American Association for the Advancement of Science has a program of AAAS Mass Media Fellowships that place scientists for limited terms in media newsrooms, to learn the other side of science communication – reporting directly for the public.

IAU offers CAPJournal, described as “a free peer-reviewed journal for astronomy communicators, online and in print.” Look through a few recent issues for ideas and helpful hints.

HOW NOT?

Don't go forward with a press announcement against the advice of collaborators and senior colleagues, or without required institutional approvals.

Don't speak at a press conference without practicing your talk and reviewing the visuals with an experienced press officer at your institution, or from the observatory where you did the work, and be sure to likewise review your presentation in front of a colleague or two who teach undergraduates or have experience at briefing reporters. Of course the science content of your announcement should be reviewed by expert colleagues before you even plan the press conference.

Don't fail to consider the rules of certain journals, especially Nature and Science, which place strict embargoes on willful publicity by an author in advance of publication.

Don't fail to be extremely clear in what you write and say in a press conference, media interview, or press release, because when you are misquoted, the onus may be placed on you by the scientific community or even a broader population. A worst case of this phenomenon is diagrammed in the accompanying Figure from Earle Holland, Facebook and Procrastination: Runaway Coverage Mistakes Correlation for Causation, *ScienceWriters* 58, No. 3 (Summer 2009), p.6.

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